DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
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Flex your power!
Be energy efficient!

January 20, 2006

03-ED-49,50-23.7,26.9/29.1
03-3555U4
ACSTPE-P050(110)E
BRLS-6203(014)
Addendum No. 2

Dear Contractor:

This addendum is being issued to the contract for construction on State highway in EL DORADO COUNTY IN PLACERVILLE ON ROUTE 50 FROM 0.2 KM WEST OF WEST PLACERVILLE UNDERCROSSING TO CLAY STREET UNDERCROSSING AND ON ROUTE 49 AT HANGTOWN CREEK.

Submit bids for this work with the understanding and full consideration of this addendum. The revisions declared in this addendum are an essential part of the contract.

Bids for this work will be opened on February 8, 2006.

This addendum is being issued to revise the Project Plans, the Notice to Contractors and Special Provisions, the Proposal and Contract, the Federal Minimum Wages with Modification Number 29 dated 12-16-05, and provide a copy of the Information Handout. A copy of the modified wage rates are available for the contractor's use on the Internet Site:

http://www.dot.ca.gov/hq/esc/oe/weekly_ads/addendum_page.html

Project Plan Sheets 3, 4, 7, 12, 13, 15, 18, 28, 32, 33, 44, 53, 54, 57, 58, 59, 60, 76, 99, 101, 111, 112, 130, 131, 138, 140, 142, 145, 146, 151, 156, 158, 162, 163, 165, 166, 171, 173, 174, 181 through 195, 197, 199, 202, 305, 306, 307, 308, 309, 322, 324, 325, 326, 327, 328, 331, 365, 391, 445, 464, 465, 466, 469, 470, 472, 473, 485, 512 and 514 are revised. Half-sized copies of the revised sheets are attached for substitution for the like-numbered sheets.

In the Special Provisions, Section 4, "BEGINNING OF WORK, TIME OF COMPLETION AND LIQUIDATED DAMAGES," is revised as attached.

In the Special Provisions, Section 5-1.17, "PROJECT INFORMATION," the third paragraph is revised as follows:

"Information included in the Information Handout provided to bidders and Contractors is as follows:

A. Foundation Recommendation.
B. Hydraulic Recommendation.
C. Wastewater Spill Contact List.
D. Sample Protect in Place for SBC.
E. SBC distance information.
F. Boring Logs.
G. Underground Classification of Tunnels.
H. California Regional Water Quality Control Permit
I. Department of Fish and Game Permit
J. Army Corps of Engineers Permit"

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In the Special Provisions, Section 5-1.23, "ASBESTOS-CONTAINING MATERIAL," is added as attached.

In the Special Provisions, Section 10-1.01, "ORDER OF WORK," is revised as attached.

In the Special Provisions, Section 10-1.02, "RISK RESPONSE PLAN FOR CONTAINMENT, CORRECTION AND CLEAN UP OF A WASTE WATER SPILL," the first paragraph is revised as follows:

"Within 10 days after the approval of the contract, the Contractor shall submit a Risk Response Plan (RRP) for the containment, correction, and clean up of all wastewater spills to the Engineer. The Engineer will have 10 days to review the RRP. If the RRP is rejected the Contractor shall submit a new RRP within 10 days and the Engineer will have 10 days to review the new RRP. If revisions are required, as determined by the Engineer, the Contractor shall revise and resubmit the RRP within 10 days of receipt of the Engineer's comments. The Engineer will have 5 days to review the revisions. Upon the Engineer's approval of the RRP, 3 approved copies of the RRP, incorporating the required changes, shall be submitted to the Engineer. In order to allow construction activities to proceed, the Engineer may conditionally approve the RRP while minor revisions are being completed. In the event the Engineer fails to complete the review within the time allowed, and if, in the opinion of the Engineer, completion of the work is delayed or interfered with by reason of the Engineer's delay in completing the review, the Contractor will be compensated for resulting losses, and an extension of time will be granted, in the same manner as provided for in Section 8-1.09, "Right of Way Delays," of the Standard Specifications."

In the Special Provisions, Section 10-1.015, "COOPERATION," is added as attached.

In the Special Provisions, Section 10-1.03, "GENERAL MIGRATORY BIRD PROTECTION," is deleted.

In the Special Provisions, Section 10-1.05, "STORM WATER POLLUTION PREVENTION PLAN PREPARATION, APPROVAL AND AMENDMENTS," the tenth paragraph is revised as follows:

"Within 20 days after the approval of the contract, the Contractor shall submit 3 copies of the draft SWPPP to the Engineer. The Engineer will have 10 days to review the SWPPP. If revisions are required, as determined by the Engineer, the Contractor shall revise and resubmit the SWPPP within 10 days of receipt of the Engineer's comments. The Engineer will have 5 days to review the revisions. Upon the Engineer's approval of the SWPPP, 4 approved copies of the SWPPP, incorporating the required changes, shall be submitted to the Engineer. In order to allow construction activities to proceed, the Engineer may conditionally approve the SWPPP while minor revisions are being completed. In the event the Engineer fails to complete the review within the time allowed, and if, in the opinion of the Engineer, completion of the work is delayed or interfered with by reason of the Engineer's delay in completing the review, the Contractor will be compensated for resulting losses, and an extension of time will be granted, in the same manner as provided for in Section 8-1.09, "Right of Way Delays," of the Standard Specifications."

In the Special Provisions, Section 10-1.11, "TEMPORARY FENCE (TYPE ESA)," subsection, "MEASUREMENT AND PAYMENT," the last paragraph is revised as follows:

"Full compensation for maintaining, removing (including removal and replacement at the historic railroad bridge, during placement of the irrigation line), and disposing of temporary fence (Type ESA) shall be considered as included in the contract price paid per meter for temporary fence (Type ESA) and no additional compensation will be allowed therefor."

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In the Special Provisions, Section 10-1.16, "PROGRESS SCHEDULE (CRITICAL PATH METHOD)," subsection, "GENERAL REQUIREMENTS," the eleventh paragraph is revised as follows:

"The Engineer's review and acceptance of schedules shall not waive any contract requirements and shall not relieve the Contractor of any obligation thereunder or responsibility for submitting complete and accurate information. Schedules that are rejected shall be corrected by the Contractor and resubmitted to the Engineer within one week of notification by the Engineer, at which time a new review period of one week will begin."

In the Special Provisions, Section 10-1.16, "PROGRESS SCHEDULE (CRITICAL PATH METHOD)," subsection, "COMPUTER SOFTWARE," the third paragraph is revised as follows:

"The Contractor shall instruct the Engineer in the use of the software and provide software support until the contract is accepted. Within 20 days of contract approval, the Contractor shall provide a commercial 8-hour training session for 2 Department employees in the use of the software at a location acceptable to the Engineer. It is recommended that the Contractor also send at least 2 employees to the same training session to facilitate development of similar knowledge and skills in the use of the software. If software other than SureTrak is furnished, then the training session shall be a total of 16-hours for each Department employee."

In the Special Provisions, Section 10-1.16, "PROGRESS SCHEDULE (CRITICAL PATH METHOD)," subsection, "PRE-CONSTRUCTION SCHEDULING CONFERENCE," the first paragraph is revised as follows:

"The Contractor shall schedule and the Engineer will conduct a pre-construction scheduling conference with the Contractor's project manager and construction scheduler within 10 days of the approval of the contract. At this meeting the Engineer will review the requirements of this section of the special provisions with the Contractor."

In the Special Provisions, Section 10-1.16, "PROGRESS SCHEDULE (CRITICAL PATH METHOD)," subsection, "BASELINE SCHEDULE," the second paragraph is revised as follows:

"The Contractor shall submit to the Engineer a baseline schedule within 20 days of approval of the contract. The Contractor shall allow 3 weeks for the Engineer's review after the baseline schedule and all support data are submitted. In addition, the baseline schedule submittal will not be considered complete until the computer software is delivered and installed for use in review of the schedule."

In the Special Provisions, Section 10-1.18, "OBSTRUCTIONS," the table in the fifth paragraph is revised as follows:

Utility (address)	Location	Working Days
PG&E*	Placerville Drive Connector – Forni Road to Canal Street	30
SBC	Bedford Avenue Pedestrian Overcrossing North Ramp	10
ED County	Bedford Avenue and Route 50	10

*The roadway embankment must be constructed prior to PG&E coming in to trench for their conduits.

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In the Special Provisions, Section 10-1.23, "MAINTAINING TRAFFIC," the following paragraphs are added after the first paragraph:

"The Contractor shall notify the Engineer and CHP at least 5 working days prior to any traffic control operations required for blasting. The Contractor shall present to the Engineer a traffic control plan in which the Contractor details the sequence of blasting operations and the coordination with reopening of lanes to public traffic, as specified herein.

The Contractor shall coordinate ramp closures and CHP controlled traffic breaks in order to minimize inconvenience to public traffic. During blasting operations, ramp closures, cross street closures and traffic breaks shall be performed simultaneously on both sides of Route 50.

During blasting operations, a portable changeable message sign shall be placed in each direction of travel, as directed by the Engineer. Portable changeable message signs shall be placed a minimum of 5 calendar days prior to blasting operations.

During blasting operations, the Contractor shall close on-ramps using one employee at each ramp with the ramp entrance blocked using a pickup truck. The pickup truck shall be equipped with rotary warning lights, radio and a cellular phone. On-ramps and cross streets may require closures during blasting operations.

During blasting operations, mainline traffic shall not be stopped for periods exceeding 20 minutes.

After each blasting operation, the contractor shall clean up all debris deposited on the roadway, prior to opening lanes to public traffic."

In the Special Provisions, Section 10-1.23, "MAINTAINING TRAFFIC," Chart Nos. 5, 6, 8 and 9 are revised as attached.

In the Special Provisions, Section 10-1.29, "PORTABLE CHANGEABLE MESSAGE SIGN," the first and second paragraphs are revised as follows:

"Portable changeable message signs shall be furnished, placed, operated, and maintained during each lane, ramp, cross-street closure, detour and during blasting operations at those locations approved by the Engineer, shown on the plans or where designated by the Engineer in conformance with the provisions in Section 12, "Construction Area Traffic Control Devices," of the Standard Specifications and these special provisions.

The number of portable changeable message signs required at any one time will be determined by the number of lane, shoulder, ramp and cross street closures and detours as shown on the "Traffic Handling" plans, and during blasting operations, that the Contractor determines are necessary for his operations."

In the Special Provisions, Section 10-1.34, "EXISTING HIGHWAY FACILITIES," the subsection, "ABANDON PIPE LINE (EID IRRIGATION SIPHON)," is added after the subsection, "ABANDON CULVERT AND PIPE LINE," as attached.

In the Special Provisions, Section 10-1.34, "EXISTING HIGHWAY FACILITIES," the subsection, "REMOVE CONCRETE," is revised as attached.

In the Special Provisions, Section 10-1.36, "EARTHWORK," subsection, "PAYMENT," the third through the tenth paragraphs are deleted.

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In the Special Provisions, Section 10-1.36, "EARTHWORK," the following paragraph is added after the last paragraph:

"Surplus excavated material shall become the property of the Contractor and shall be disposed of in conformance with the provisions in Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications."

In the Special Provisions, Section 10-1.365, "ROCK EXCAVATION," is added as attached.

In the Special Provisions, subsection 10-4.02A, "GENERAL REQUIREMENTS," in subsection, "COORDINATION," the ninth paragraph is revised as follows:

"Existing fences or objects that are removed for trenching of laterals shall be replaced in kind."

In the Special Provisions, subsection 10-4.03A, "GENERAL REQUIREMENTS FOR SEWER MAINS," in subsection, "DIVERSION PLAN," the following paragraph is added after the last paragraph:

"Bypasses shall have enough capacity to handle peak flows of 3.8 cubic meters per minute with a peaking factor of 4 during storm events for a total peak flow of 15.2 cubic meters per minute."

In the Special Provisions, subsection 10-4.03C, "MATERIALS FOR THE SEWER SYSTEM," the following subsection is added after the subsection, "PATCHING WITHIN MANHOLES":

"**POLYVINYL CHLORIDE (PVC) PLASTIC PIPE**

All PVC Plastic Pipe shall conform to Section 207-17 of the Greenbook Specifications unless specified otherwise in the plans or in these special provisions."

In the Special Provisions, subsection 10-4.03C, "MATERIALS FOR THE SEWER SYSTEM," in subsection, "LINING FOR MANHOLES," the last paragraph is deleted.

In the Special Provisions, subsection 10-4.03D, "SEWER MAIN RELOCATION MEASUREMENT AND PAYMENT," in subsection, "PAYMENT," the following paragraph is added after the last paragraph:

"Full compensation for conforming to the requirements for attaching sewer pipe to wall, including furnishing and constructing concrete pedestals, excavation and backfill for pedestals, drill and bond dowels for pedestals, bar reinforcing steel for pedestals, weep holes through pedestals, welded steel casing and pipe support anchorage complete in place as shown on the plans and as specified in these special provisions shall be considered as included in the contract price paid per meter for 300 mm welded steel pipe casing (pipe support) and no separate payment will be made therefor."

In the Proposal and Contract, the Engineer's Estimate Items 2, 5, 34, 57, 69, 91, 121, 123, 125, 146, 157, 183, 185, 204, 206, 210, 228, 223, 235 and 240 are revised, Items 301, 302, 303 and 304 are added and Items 131, 158, 160, 207 and 300 are deleted as attached.

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To Proposal and Contract book holders:

Replace pages 3, 4, 5, 6, 7, 9, 10, 12, 13, 14 and 17 of the Engineer's Estimate in the Proposal with the attached revised pages 3, 4, 5, 6, 7, 9, 10, 12, 13, 14 17 and add 17A of the Engineer's Estimate. The revised Engineer's Estimate is to be used in the bid.

Inquiries or questions in regard to this addendum must be communicated as a bidder inquiry and must be made as noted in the NOTICE TO CONTRACTORS section of the Notice to Contractors and Special Provisions.

Indicate receipt of this addendum by filling in the number of this addendum in the space provided on the signature page of the proposal.

Submit bids in the Proposal and Contract book you now possess. Holders who have already mailed their book will be contacted to arrange for the return of their book.

Inform subcontractors and suppliers as necessary.

This office is sending this addendum by UPS overnight mail to Proposal and Contract book holders to ensure that each receives it. A copy of this addendum and the modified wage rates are available for the contractor's use on the Internet Site:

http://www.dot.ca.gov/hq/esc/oe/weekly_ads/addendum_page.html

If you are not a Proposal and Contract book holder, but request a book to bid on this project, you must comply with the requirements of this letter before submitting your bid.

Sincerely,

ORIGINAL SIGNED BY

REBECCA D. HARNAGEL, Chief
Office of Plans, Specifications & Estimates
Office Engineer

Attachments

SECTION 4. BEGINNING OF WORK, TIME OF COMPLETION AND LIQUIDATED DAMAGES

Attention is directed to the provisions in Sections 8-1.03, "Beginning of Work," 8-1.06, "Time of Completion," and 8-1.07, "Liquidated Damages," of the Standard Specifications, and these special provisions.

SUBMITTALS

The Contractor shall not begin construction activities at the project site until the following documents have been submitted by the Contractor, and accepted or approved by the Engineer:

Baseline Progress Schedule (Critical Path Method)
Storm Water Pollution Prevention Plan
Notification of Dispute Review Board nominee and disclosure statement

The Contractor shall not begin construction activities at the project site until the following documents have been submitted to the Engineer:

Notice of (all) Materials to be Used
Lane Closure Contingency Plans
Electrical Materials Vendor Statement

DELAYED START

Working days shall begin **70** calendar days after the contract has been approved by the Attorney General, or the attorney appointed and authorized to represent the Department of Transportation. The Contractor may begin construction activities at the project site earlier than **70** calendar days after the contract has been approved but only after compliance is achieved with the requirements regarding submittal and acceptance or approval of the documents specified in this section. In the event of noncompliance regarding submittal and acceptance or approval of these documents, the Contractor shall be charged working days beginning **70** calendar days after the contract has been approved, and shall not be allowed to start construction activities at the project site until compliance is achieved.

The Contractor shall furnish the Engineer with a statement from the vendor that the order for the electrical materials required for this contract has been received and accepted by the vendor; and the statement shall be furnished within 15 calendar days after the contract has been approved by the Attorney General, or the attorney appointed and authorized to represent the Department of Transportation. The statement shall give the date that the electrical materials will be shipped. If the Contractor has the necessary materials on hand, the Contractor will not be required to furnish the vendor's statement.

The work shall be diligently prosecuted to completion before the expiration of **540 WORKING DAYS** beginning on the **seventieth** calendar day after approval of the contract.

The Contractor shall pay to the State of California the sum of $ 6,600 per day, for each and every calendar day's delay in finishing the work in excess of 540 WORKING DAYS.

The 72 hours advance notice before beginning work referred to in Section 8-1.03, "Beginning of Work," of the Standard Specifications is changed to 7 days advance notice for this project.

INTERNAL TIME OF COMPLETION

The Contractor shall diligently prosecute to completion the work described in "Designated Portion of Work" of these special provisions before the expiration of **120 WORKING DAYS** beginning on the following calendar day after work has begun at each location.

The Contractor shall pay to the State of California the sum of $500 per day, for each and every calendar day's delay in finishing the work described in "Designated Portion of Work" in excess of the number of working days prescribed above. Delays due to inclement weather shall not apply.

Liquidated damages shall accrue separately and independently of deductions for internal time of completion.

The provisions of paragraph 2 through 5 of Section 8-1.06, "Time of Completion," of the Standard Specifications shall not apply to the provisions for internal time of completion of these special provisions.

5-1.23 ASBESTOS-CONTAINING MATERIAL

Asbestos-containing material (ACM), as defined in Section 1529, "Asbestos," of the Construction Safety Orders, Title 8, of the California Code of Regulations, is present within the existing sewer system. Asbestos-containing material is present between existing manhole 21a, at 30.8 m left of Station "A1" 10+31.1, to existing manhole 21b, at 27.0 m left of Station "A1" 10+36.8, (6.0 m of removal of 250 mm asbestos cement pipe).

The Contractor shall notify the California Air Resource Board Compliance, Compliance Division, 2020 L Street, Sacramento, CA 95814, Attention: Francis Matel, as required by (National Elimination System for Hazardous Air Pollutants) NESHAP, 40CFR Part 61, and California Air Resources Control Board rules. A copy of the notification form and attachments shall be provided to the Engineer prior to submittal to Sacramento County ARB. Notification shall take place a minimum of 10 days prior to demolition.

All work shall be performed by a contractor who is registered pursuant to Section 6501.5 of the Labor Code and certified pursuant to Section 7058.6 of the Business and Professions Code. Asbestos removal shall conform to Cal-OSHA requirements in Title 8, Sections 1529 and 341. Packaging, storage, transporting, and disposing of ACM shall conform to Title 22 , Division 4, Chapter 30.

All friable material shall be removed in a manner which conforms to OSHA work practice requirements. All non-friable ACM shall be removed and handled to prevent breakage. Non-friable ACM shall be disposed of to a landfill facility permitted to take asbestos containing products.

Attention is directed to Section 7-1.06, "Safety and Health Provisions," of the Standard Specifications. Work practices and worker health and safety during any work that results in disturbance of ACM shall conform to Section 1529, "Asbestos," of the Construction Safety Orders, Title 8, of the California Code of Regulations. Written notification of exposure monitoring results shall be submitted to the Engineer upon its completion. Any required written certification of the adequacy of alternative work practices shall be submitted to the Engineer before performing any work. The Contractor shall certify in writing that the personnel performing the work have completed a training program appropriate for the work involved.

The requirements of subsection (d), "Multi-Employer Worksites," of Section 1529, "Asbestos," of the Construction Safety Orders, Title 8, of the California Code of Regulations shall be observed during performance of the work. This shall not be construed as relieving the Contractor from the Contractor's responsibilities as provided in Section 8-1.01, "Subcontracting," of the Standard Specifications.

Removal and Disposal of asbestos containing material as identified above will be paid for as extra work as provided in Section 4-1.03D of the Standard Specifications.

10-1.01 ORDER OF WORK

Order of work shall conform to the provisions in Section 5-1.05, "Order of Work," of the Standard Specifications and these special provisions.

Attention is directed to "Obstructions" elsewhere in these special provisions regarding temporary conduit support/protection plan required prior to bridge removal at Hangtown Creek Bridge at Bedford Avenue (Br. No. 25C-0011).

Attention is directed to "Obstructions" elsewhere in these special provisions regarding joint underground conduits to be placed by PG&E, as shown on the plans. All other underground utilities on the Placerville Drive Connector shall be placed prior to notification of PG&E for placement of these conduits.

Attention is directed to "Internal Time of Completion" in Section 4, "Beginning of Work, Time of Completion and Liquidated Damages," of these special provisions.

Attention is directed to "Designated Portion of Work" of these special provisions.

Construction operations within the stream zone of Hangtown Creek shall be restricted to periods of low stream flow and dry weather and shall be confined to the period of April 15 to October 15. Construction activities shall be timed with awareness of precipitation forecasts and likely increases in stream flow. Construction activities shall cease and all reasonable erosion control measures shall be implemented prior to all storm events. Revegetation work is not confined to this time period.

In areas of overlapping roadway and sanitary sewer work, sanitary sewer work shall be performed before roadway work.

During Stage 1 at Location 1, Placerville Drive and Placerville Drive on-ramp shall be the first order of work.

During Stage 2 at Location 2, removal of the Bedford Avenue pedestrian overcrossing superstructure and median column shall occur prior to closing the east side of Bedford Avenue.

Forni Road shall be maintained and accessible until Location 1, Stage 4.

Full closure of Placerville Drive on-ramp shall not exceed 45 calendar days. Full closure of Placerville Drive off-ramp shall not exceed 15 calendar days. The Contractor shall not work between the hours of 10:00 pm and 6:00 am at these locations. The on-ramp shall not be closed prior to May 1 of any season and the off-ramp shall not be closed prior to May 15th of any season. The on-ramp and off-ramp shall not be closed concurrently. For each 10-minute interval, or fraction thereof past the time specified to reopen the closure, for the Placerville Drive on-ramp, the Department will deduct $4,620 per interval from moneys due or that may become due the Contractor under the contract. For each 10-minute interval, or fraction thereof past the time specified to reopen the closure, for the Placerville Drive off-ramp, the Department will deduct $7,560 per interval from moneys due or that may become due the Contractor under the contract.

Construction, in the parking lot south of the Placerville Drive Connector (Big Brothers and Pawn Shop) and north of the Placerville Drive Connector (Bagel shop and Kentucky Fried Chicken), shall not be done at the same time.

The Contractor shall retain, and have available, the services of U.S. Fish and Wildlife Service approved California red-legged frog biologist. The biologist shall conduct a training session for all construction personnel. At a minimum, the training shall include a description of the California red-legged frog and its habitat, the general measures that are being implemented to conserve the California red-legged frog as they relate to the project, and the boundaries within which the project may be accomplished. Construction personnel shall be informed to check under vehicles for frogs before start-up each day.

Qualified biologists are not approved to handle California red-legged frogs. Only authorized biologists may handle red-legged frogs, except as approved by the Engineer during circumstances defined in the Federal Endangered Species Act. If a California red-legged frog is present within the project area all activities which could harm the frog must cease and the U.S. Fish and Wildlife Service and the California Department of Fish and Game must be contacted for guidance on how to proceed.

The Contractor shall also retain, and have available, the services of a professionally qualified biologist familiar with riparian habitat. This biologist may also be the U.S. Fish and Wildlife Service approved California red-legged frog biologist, assuming they meet the necessary qualifications. Caltrans, District 3, Office of Environmental Management must approve the use of this riparian biologist. The biologist shall be present during all activities within Hangtown Creek to ensure that no unauthorized activities occur within Hangtown Creek and ensure compliance with the conditions of the U.S. Army Corps of Engineers letter or permission, the California Department of Fish and Game streambed alteration agreement, the Central Valley Regional Water Quality Control Board 401 water quality certification, and the U.S. Fish and Wildlife Service biological opinion.

If unauthorized activities occur within Hangtown Creek the on site biologist has the authority to stop that activity. The ceased activity may not resume until permission is granted by Caltrans, District 3, Office of Environmental Management.

Full compensation for providing approved biologist(s), training session, and checking for frogs each day shall be considered as included in the various items of work and no additional compensation will be allowed therefor.

The Contractor shall protect migratory birds, their occupied nests and eggs.

The Federal Migratory Bird Treaty Act (16 U.S.C. 703 et seq.), Title 50 Code of Federal Regulations part 10, and California Department of Fish and Game Code Sections 3503, 3513, and 3800, protect migratory birds, their occupied nests, and their eggs.

Nesting or attempted nesting by migratory birds is anticipated to occur between, but not limited to, March 1 and July 31.

The Contractor shall notify the Engineer 15 working days prior to beginning work disturbing structures, the ground or vegetation to allow a Department biologist time to perform pre-construction surveys for nesting birds.

If occupied nests are found at any time within the project area or if migratory birds are injured or killed due to construction related activities, the Contractor shall immediately notify the Engineer and stop work in the immediate area. Work shall not resume in the immediate area until the Engineer provides written notification to proceed.

Penalties shall include fines, penalties, and damages; whether proposed, assessed, or levied against the Department or the Contractor. Penalties shall also include payments made or costs incurred in settlement for alleged violations of applicable laws, regulations, or requirements. Costs incurred could include sums spent instead of penalties, in mitigation or to remediate or correct violations.

Full compensation for protecting migratory birds (including all penalties, fines, and impacts and delays due to nesting birds), shall be considered as included in the various contract items of work and no separate payment will be made therefor.

If during any subsurface disturbance or pavement removal, human skeletal remains are encountered, the Contractor's construction activities, within ten meters shall be halted immediately and the County Coroner shall be notified. Construction activities shall not be resumed until permitted in writing by the Engineer. All provisions of the Health and Safety Code 7054 and 7050.5 and the Public Resources Code 5097.9 through 5097.99 shall be followed. The California Public Resources Code Section 5097.98 and 5097.99 require protection of Native American remains, which may be found, and outline procedures that must be followed for handling any burials found.

Should archaeological remains of an otherwise unanticipated archaeological nature be uncovered, the Engineer or his representative shall stop the work in the area of discovery until the significance of the find can be evaluated by a qualified archaeologist. If, in the opinion of the Engineer, the Contractor's operations are delayed or interfered with by the reason of an unanticipated archaeological discovery, the State shall compensate the Contractor for such delays to the extent provided in Section 8-1.09, "Right of Way Delays", of the Standard Specifications.

Except as noted herein, the Contractor shall maintain access on all routes for permit loads during the work shifts. Permit loads are defined as overweight or oversized vehicles that have an approved permit for traveling this route. The Contractor shall give notice 15 calendar days in advance to the Engineer and the Traffic Office of Truck Services at (916) 322-4957, when the horizontal clearances are less than 4.88 m and the vertical clearances are less than 5.5 m or when traffic is detoured around the project.

The Contractor shall replace any damaged count station and loops on all routes within the work area before opening each direction to public traffic before the final asphalt concrete (AC) paving lift is placed. The count stations will be determined to be working before acceptance by the Engineer.

Attention is directed to "Shoulder Backing" elsewhere in these special provisions, regarding portable delineators and C31 "Low Shoulder" signs.

Attention is directed to "Temporary Creek Diversion" elsewhere in these special provisions and the details as shown on the plans.

The historic railroad bridge, as shown on the plans, shall be protected at all times. Temporary fence (Type ESA) shall be placed around the bridge, as shown on the plans, to eliminate access to the bridge. No access shall be provided to the bridge with the following exception: during construction of the irrigation line trench and placement of the 75 mm irrigation line, across the top of the bridge within the fill dirt. For this work, the temporary fence (Type ESA) shall be temporarily removed from either end of the bridge deck and will be replaced as soon as the irrigation line is in place. Before excavating the trench, the depth of the fill on top of the bridge will be tested using a hand probe. The depth of the fill will guide the excavation work. Contact with the bridge shall be avoided at all times. Construction of the trench and placement of the 75 mm line shall be accomplished using hand tools or a small hand guided trencher. A cultural resource specialist shall monitor all work, including the depth probe, on the bridge.

Fuel shall not be stored nor vehicles maintained within 20 meters of Hangtown Creek.

Temporary shoring will be required for the bents at West Placerville Undercrossing, as shown on the plans. Full compensation for temporary shoring shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation.

DESIGNATED PORTION OF WORK

The Contractor's attention is directed to the temporary construction easements, and to Section 4, "Beginning of Work, Time of Completion and Liquidated Damages," elsewhere in these special provisions regarding the "Designated Portion of Work." The following work is the "Designated Portion of Work":

Temporary Construction Easements

10-1.015 COOPERATION

Attention is directed to Section 7-1.14, "Cooperation," and Section 8-1.10, "Utility and Non-Highway Facilities," of the Standard Specifications and these special provisions.

It is anticipated that work by another contractor, under a City of Placerville contract to relocate a water line in El Dorado County near Route 50 at Bedford Avenue from Main Street to Union Street may be in progress adjacent to or within the limits of this project during progress of the work on this contract.

Chart No. 5
Two-Lane Conventional Highway Lane Requirements

Direction: SOUTHBOUND/NORTHBOUND Location: Canal St. adjacent to ED 50 at KP 28.21/PM 17.53

	a.m.												p.m.												
FROM HOUR TO HOUR	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Mondays through Thursdays	X	X	X	X	X	X	X															X	X	X	
Fridays	X	X	X	X	X	X	X																	X	
Saturdays	X	X	X	X	X	X	X	X														X	X	X	
Sundays	X	X	X	X	X	X	X	X	X												X	X	X	X	
Day before designated legal holiday & designated legal holidays																									

Legend:

X	Road Closure
	No closure allowed

REMARKS:
1) Detour utilizing CMS
2) When Canal Street is closed, SR 49 (Spring Street), Center Street and Bedford Avenue shall not to be closed
3) SR 50 shall remain accessible during closure of any cross street

Chart No. 6
Two-Lane Conventional Highway Lane Requirements

Direction: SOUTHBOUND/NORTHBOUND Location: ED-49-KP 23.7 (PM 14.7) Spring St

FROM HOUR TO HOUR	a.m. 12	1	2	3	4	5	6	7	8	9	10	11	p.m. 12	1	2	3	4	5	6	7	8	9	10	11	12
Mondays through Thursdays	X	X	X	X	X	X	X															X	X	X	
Fridays	X	X	X	X	X	X	X																	X	
Saturdays	X	X	X	X	X	X	X	X														X	X	X	
Sundays	X	X	X	X	X	X	X	X	X												X	X	X	X	
Day before designated legal holiday & designated legal holidays																									

Legend:

X	Road Closure allowed
	No closure allowed

REMARKS:

1) Detour utilizing CMS
2) When SR49 (Spring Street) is closed, Canal Street, Center Street and Bedford Avenue shall not be closed
3) SR 50 shall remain accessible during closure of any cross street

Chart No. 8
Two-Lane Conventional Highway Lane Requirements

Location: SOUTHBOUND/NORTHBOUND Location: Bedford Ave adjacent to ED 50 KP 29.01/PM 18.02

FROM HOUR TO HOUR	a.m. 12	1	2	3	4	5	6	7	8	9	10	11	p.m. 12	1	2	3	4	5	6	7	8	9	10	11	12
Mondays through Thursdays	X	X	X	X	X	X	X															X	X	X	
Fridays	X	X	X	X	X	X	X																	X	
Saturdays	X	X	X	X	X	X	X	X														X	X	X	
Sundays	X	X	X	X	X	X	X	X	X												X	X	X	X	
Day before designated legal holiday & designated legal holidays																									

Legend:

X	Road Closure
	No closure allowed

REMARKS:
1) Detour utilizing CMS
2) When Bedford Avenue is closed, Canal Street, SR 49 (Spring Street), and Center Street shall not be closed
3) SR 50 shall remain accessible during closure of any cross street

Chart No. 9
Two-Lane Conventional Highway Lane Requirements

Direction: NORTHBOUND/SOUTHBOUND Location: Center St adjacent to ED 50 KP 28.61/PM 17.78

FROM HOUR TO HOUR	a.m. 12	1	2	3	4	5	6	7	8	9	10	11	p.m. 12	1	2	3	4	5	6	7	8	9	10	11	12
Mondays through Thursdays	X	X	X	X	X	X	X															X	X	X	
Fridays	X	X	X	X	X	X	X																	X	
Saturdays	X	X	X	X	X	X	X	X														X	X	X	
Sundays	X	X	X	X	X	X	X	X	X												X	X	X	X	
Day before designated legal holiday & designated legal holidays																									

Legend:

X	Road Closure allowed
	No closure allowed

REMARKS:
1) Closure allowed for EB Route 50 widening during Stage 1 at location 2
2) Detour utilizing CMS
3) When Center Street is closed, Canal Street, SR 49 (Spring Street), and Bedford Avenue shall not be closed
4) SR 50 shall remain accessible during closure of any cross street

ABANDON PIPE LINE (EID IRRIGATION SIPHON)

Existing utility pipeline, where shown on the plans to be abandoned, which is in conflict during excavation shall be capped as shown on the plans.

Full compensation for pipe line capping and pipe removal or crushing in place shall be considered as included in the contract price paid for the various items of work and no additional compensation will be allowed therefor.

REMOVE CONCRETE

Concrete, where shown on the plans to be removed, shall be removed.

The pay quantities of concrete pavement, (structure) and (pedestrian ramp), to be removed will be measured by the cubic meter, measured before and during removal operations.

Removing concrete curb, concrete barrier, and concrete curb and sidewalk will be measured by the meter, measured along the curb, barrier or sidewalk before removal operations.

Concrete removed shall be disposed of outside the highway right of way in conformance with the provisions in Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications.

10-1.365 ROCK EXCAVATION

Rock excavation shall conform to the provisions in Section 19, "Earthwork," of the Standard Specifications and these special provisions.

Rock excavation shall consist of removing rock, durable rocky material and earthen material as shown on the plans using hydraulic hammers, pneumatic hammers, roadway excavation techniques, controlled blasting or other methods approved by the Engineer in writing.

At the option of the Contractor, controlled blasting may be used for rock excavation and structure excavation in conformance with the requirements of these special provisions.

Geotechnical reports are available to the Contractor in the Materials Information handouts for this project.

CONTROLLED BLASTING

Controlled blasting shall conform to all Federal, State, and local regulations. Controlled blasting shall conform to the California Occupational Safety and Health Standards, Title 8, Chapter 4, Section 1567(c), "Explosives, Loading Machines, and Methods," for loading operations performed within 50 feet of traffic and to Sections 7-1.10, "Use of Explosives," and 19-2.03, "Blasting," of the Standard Specifications and these special provisions.

No blasting operation, including drilling, shall start until the Engineer has reviewed and approved the controlled blasting plan in conformance with the provisions in Section 5-1.02, “Plans and Working Drawings,” of the Standard Specifications.

No blasting shall be performed within 370 meters of a structure where concrete has been placed within the previous 72 hours.

The Contractor shall control project blasting so that fly rock, ground vibrations, air noise levels do not exceed the requirements of these special provisions.

The Contractor shall be responsible for all damage resulting from blasting.

Controlling fly rock, ground vibrations, air noise levels as specified herein shall not relieve the Contractor of the responsibility for assuring the complete safety of the operation.

Personnel Qualifications

Blasting supervisors (blaster in charge) shall have a minimum of 10 years of documented experience directly related to the specific types of blasting they are supervising.

All blasters and supervisors shall be properly qualified and licensed in conformance with applicable federal, state, and local government regulations.

The Contractor shall retain the services of qualified seismologist (either a certified engineering geologist, certified geophysicist or licensed engineering consultant) with at least 10 years documented experience in monitoring blasting operations and interpreting ground vibration, air overpressure and underwater blasting noise for similar construction projects.

The Contractor shall retain the services of a licensed blasting consultant with a minimum of 10 years documented experience in preparing controlled blasting designs to review the proposed controlled blasting plan.

Controlled blasting plan

The Contractor shall submit a written controlled blasting plan to the Engineer for approval.

The controlled blasting plan shall include provisions for performing and monitoring test blasting and controlled blasting.

The controlled blasting plan shall include copies of required licensing and documentation for blasting supervisors, blasting personnel and blasting consultant.

Within the controlled blasting plan, all individual controlled blasting plans, (including test blasting), and revisions to these plans shall be reviewed by and covered with a signed review letter by the blasting consultant. The blasting consultant will not be required to sign individual controlled blasting plans provided they are signed by an on-site licensed blaster.

Controlled blasting, including test blasting and drilling, shall not commence until the Contractor has received written approval from the Engineer for the Contractor's controlled blasting plan.

The controlled blasting plan shall provide for limiting the maximum peak particle velocity of any one of the three mutually perpendicular components of ground motion in the vertical and horizontal directions, or their resultant, to 50 mm/second, air noise to 125 dBc and for controlling fly rock during blasting.

The Contractor shall use appropriate blast hole patterns, detonation systems, and stemming to prevent venting of blasts, to control air noise and fly rock produced by blasting operations.

The controlled blasting plan shall indicate the type and method of instrumentation proposed to determine maximum peak particle velocity and air noise levels.

The controlled blasting plan shall contain pre-blast survey reports in conformance with “Pre-Blast Condition Survey” of this special provision.

Within 60 days, the Contractor shall submit 3 copies of the controlled blasting plan to the Engineer. The Engineer will have 15 days to review the controlled blasting plan. If revisions are required, as determined by the Engineer, the Contractor shall revise and resubmit the controlled blasting plan within 10 days of receipt of the Engineer's comments. The Engineer will have 15 days to review the revisions. Upon the Engineer's approval of the controlled blasting plan, 3 additional copies of the controlled blasting plan incorporating the required changes shall be submitted to the Engineer. Minor changes or clarifications to the initial submittal may be made and attached as amendments to the controlled blasting plan. An updated signed review letter from the blasting consultant shall be attached to any updates, revisions or amendments to the controlled blasting plan.

Approval of the Contractor's controlled blasting plan or blasting procedures shall not relieve the Contractor of any responsibilities under the contract for assuring the complete safety of all project operations or for the successful completion of the work in conformity with the requirements of the plans and specifications.

Pre-Blast Condition Survey

The Contractor shall make and document a pre-blast survey of all structures and buildings within a 370 meters radius of the blast site(s).

The survey method used shall be acceptable to the Contractor's insurance company.

The Contractor shall make a pre-blast survey within 45 calendar days in advance of the planned commencement or resumption of blasting operations. Pre-blast records shall be made available to the Engineer for review.

The Contractor shall give written notice of controlled blasting to occupants of local buildings a minimum of 7 days in advance of starting or restarting blasting operations.

The pre-blast survey shall, as a minimum, contain the following:

A. The name of the person making the inspection.
B. The names of the property owner and occupants, the addresses of the property, the date and time of the inspection.
C. A complete description of the structure(s) or other improvement(s) including culverts and bridges.
D. A detailed interior inspection with each interior room (including attic and basement spaces) designated and described. All existing conditions of the walls, ceiling and floor such as cracks, holes and separations shall be noted.
E. A detailed exterior inspection fully describing the existing conditions of all foundations, walls, roofs, doors, windows, and porches.
F. A detailed listing, inspection and documentation of existing conditions of garages, outbuildings, sidewalks and driveways.
G. A detailed inspection of the completed portions of the structure. All existing conditions such as cracks, holes, and separations shall be noted.
H. A detailed listing of highway signposts, light fixtures and overhead power lines and support structures for overhead power lines.
I. A survey of any wells or other private water supplies including total depth and existing water surface levels.

The Contractor shall perform a re-survey of all locations whenever blasting operations are either suspended longer than 45 calendar days or terminated.

The documentation may consist of either a written report, or videotape with voice narration. The videotape, if used, must include date and time displayed on the image.

The Contractor shall provide copies of the pre-blast inspection report or videotape documentation to the Engineer at the time that the controlled blasting plan is submitted.

Monitoring

The Contractor shall monitor all blasts for fly rock, ground motion and air noise.

Production blasting shall not start until a test blast has been has been performed that meets the peak particle velocity and air noise limits in the controlled blasting plan and this special provision.

The results of the test blast shall contain adequate information for estimating the peak particle velocity and air noise that will be produced by controlled blasting.

The Contractor shall furnish a permanent, signed and dated monitoring record of peak particle velocity readings and air noise readings to the Engineer for review and approval within 24 hours after the test blast or production blast. The next blast shall not be performed until after the Engineer has approved the monitoring record.

Blasting monitoring records shall include the following:

A. Identification of instrument used.
B. Name of qualified observer and interpreter.
C. Distance and direction of recording station from blast area.
D. Type of ground at recording station and material on which instrument is sitting.
E. Maximum peak particle velocity in each component.
F. A dated and signed copy of seismograph readings record.
G. Air noise readings.

Fly Rock Control

Before the firing of any blast the Contractor shall cover the rock to be blasted with approved blasting mats, soil, or other equally serviceable material, to prevent fly rock.

If fly rock leaves the blast site all blasting operations shall immediately cease until a qualified blasting consultant hired by the Contractor reviews the site and determines the cause and solution to the fly rock problem. Before blasting is restarted, the Contractor shall submit to the Engineer for approval a written report revising the controlled blasting plan. Revised controlled blasting plan shall conform to the requirements of this special provision. Blasting shall not be restarted until the Engineer approves controlled blasting plan revisions.

If fly rock leaves the blasting site and lands on the adjacent roadway the Contractor will be responsible for immediately clearing all lanes of fly rock.

Shot Guarding

During controlled blasting operations, the Contractor shall restrict construction equipment and roadway traffic through the blasting area.

The Contractor shall provide blasting guards and station them around the blasting area during controlled blasting.

Ground Vibration Control

The Contractor shall control ground vibrations by the use of properly designed delay sequences and allowable charge weights per delay.

Allowable charge weights per delay shall be based on ground vibration levels that will not cause damage. The Contractor shall perform test blasts to select allowable charge weights per delay by measuring peak particle velocity levels.

The test blast and production blasting shall be required to limit ground vibrations to a peak particle velocity of 50 mm/second.

The Contractor shall select proper control methods to limit over-break.

The Contractor shall have full responsibility to control over-break.

During blasting, the Contractor shall employ a qualified seismologist, subject to the approval of the Engineer. The seismologist shall interpret the seismograph records after each blast to ensure that the seismograph data are utilized effectively in the control of the blasting operations.

During blasting operations at least one seismograph shall be used. The seismograph used shall be capable of recording particle velocities for three mutually perpendicular components of vibration in the range generally found with controlled blasting. The instrument shall be placed between the nearest structure or environmentally sensitive area and the blast site. The Contractor shall furnish a permanent, signed and dated record of ground vibration readings to the Engineer immediately after each shot.

Air Noise Control

The Contractor shall use appropriate blast hole patterns, detonation systems, and stemming to prevent venting of blasts and to limit air noise levels produced by controlled blasting operations.

The equipment used to make air noise measurements shall be the type specifically manufactured for that purpose.

Air noise measuring equipment shall be installed in the same locations as seismographs, between the main blasting area and the nearest structure, environmentally sensitive area or at locations directed by the Engineer.

Air noise levels shall be held below 125 dBc (decibels) at the nearest structure or designated location.

The decibel level limit specified herein shall be lowered if property damage or unresolved public complaints are received after each test blast or controlled blast.

The Contractor shall furnish a permanent, signed and dated record of air noise readings to the Engineer immediately after each shot.

Suspension Of Work

The Engineer may immediately suspend controlled blasting operations for any of the following:

A. Safety precautions, monitoring equipment or traffic control measures are inadequate.
B. Ground motion particle velocity or air noise levels exceed the limits specified.
C. Controlled blasting plan or revisions have not been approved.
D. Required records are not being kept.
E. Monitoring reporting is not being performed as specified.
E. Excessive over-break as determined by the Engineer.
F. Flyrock leaves the blast site.

Suspension of controlled blasting operations shall in no way relieve the Contractor of responsibilities under the terms of this contract.

Controlled blasting operations shall not resume until modifications have been made to the controlled blasting plan to correct the conditions that resulted in the suspension.

Public Complaints

Public complaints concerning blasting shall be accurately recorded and immediately addressed by the Contractor and shall include the following:

A. Name and address of complainant.
B. Date, time, and nature of complaint.
C. Dated photo or video documentation if physical damage complaint is involved.
D. Name of person receiving complaint.
E. Complaint investigation conducted.
F. Resolution of complaint.

The Contractor shall make the written complaint report available to the Engineer as soon as practical, but no later than at the beginning of the following day's work shift.

Project Blasting Records

The Contractor shall keep accurate records of each blast. Project blasting records shall be made available to the Engineer at all times and shall contain the following data as a minimum:

A. Blast identification by numerical and chronological sequence.
B. Location (referenced to stationing), date and time of blast
C. Type of material blasted.
D. Number of holes.
E. Diameter, depth and spacing of holes.
F. Logs of drill hole characteristics.
G. Height or length of stemming.
H. Types of explosives used.
I. Type of caps used and delay periods used.
J. Total amount of explosives used.
K. Maximum amount of explosives per delay period of 9 milliseconds or greater.
L. Powder factor (pounds of explosive per cubic meter of material blasted).
M. Method of firing type.
N. Weather conditions, including wind direction.
O. Direction and distance to nearest structure or structures of concern.
P. Type and method of instrumentation.
Q. Location and placement of instruments.
R. Instrumentation records and calculations for determination of peak particle velocity and air noise.
S. Measures taken to limit peak particle velocity, air noise and fly rock.
T. Any unusual circumstances or occurrences during blast.
U. Measures to limit over-break.
V. Name of Contractor.
W. Name and signature of responsible blaster.

Completed complaint reports shall be attached to corresponding blast records.

Project blasting records shall include complete pre-blasting and post-blasting survey records.

Within 10 days of conclusion of controlled blasting operations the Contractor shall furnish 3 copies of all project blasting records to the Engineer.

Payment

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in rock excavation, complete in place, including controlled blasting plan, pre-blast and post-blast surveys, controlled blasting, test blasting, monitoring and reporting, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer shall be considered as included in the contract price paid per cubic meter for earthwork, measured as specified in Section 19-3.07, "Measurement," of the Standard Specifications, and no additional compensation will be allowed therefor.

ENGINEER'S ESTIMATE
03-3555U4

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
1	070012	PROGRESS SCHEDULE (CRITICAL PATH METHOD)	LS	LUMP SUM	LUMP SUM	
2	070018	TIME-RELATED OVERHEAD	WDAY	540		
3 (S)	071322	TEMPORARY FENCE (TYPE CL-1.8)	M	18		
4 (S)	035497	TEMPORARY FENCE (PEDESTRIAN BARRICADE)	M	200		
5	071325	TEMPORARY FENCE (TYPE ESA)	M	1010		
6	072006	TEMPORARY SUPPORT	LS	LUMP SUM	LUMP SUM	
7	035498	TEMPORARY CONDUIT SUPPORT/PROTECTION SYSTEM	LS	LUMP SUM	LUMP SUM	
8	035499	TEMPORARY CAP INLET	EA	1		
9	035500	PREPARE RISK RESPONSE PLAN	LS	LUMP SUM	LUMP SUM	
10	074019	PREPARE STORM WATER POLLUTION PREVENTION PLAN	LS	LUMP SUM	LUMP SUM	
11	074020	WATER POLLUTION CONTROL	LS	LUMP SUM	LUMP SUM	
12	035501	DEWATERING	LS	LUMP SUM	LUMP SUM	
13	035502	TEMPORARY CREEK DIVERSION SYSTEM	LS	LUMP SUM	LUMP SUM	
14	074029	TEMPORARY SILT FENCE	M	1850		
15	074031	TEMPORARY GRAVEL BAG BERM	M	100		
16	074033	TEMPORARY CONSTRUCTION ENTRANCE	EA	4		
17 (S)	120090	CONSTRUCTION AREA SIGNS	LS	LUMP SUM	LUMP SUM	
18 (S)	120100	TRAFFIC CONTROL SYSTEM	LS	LUMP SUM	LUMP SUM	
19 (S)	120120	TYPE III BARRICADE	EA	28		
20 (S)	120149	TEMPORARY PAVEMENT MARKING (PAINT)	M2	500		

ENGINEER'S ESTIMATE
03-3555U4

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
21 (S)	120151	TEMPORARY TRAFFIC STRIPE (TAPE)	M	1000		
22 (S)	120152	TEMPORARY PAVEMENT MARKING (TAPE)	M2	130		
23 (S)	120159	TEMPORARY TRAFFIC STRIPE (PAINT)	M	28 700		
24 (S)	120165	CHANNELIZER (SURFACE MOUNTED)	EA	120		
25 (S)	035503	TRAFFIC PLASTIC DRUM	EA	180		
26 (S)	120300	TEMPORARY PAVEMENT MARKER	EA	1270		
27 (S)	128650	PORTABLE CHANGEABLE MESSAGE SIGN	LS	LUMP SUM	LUMP SUM	
28 (S)	129000	TEMPORARY RAILING (TYPE K)	M	6150		
29 (S)	129100	TEMPORARY CRASH CUSHION MODULE	EA	230		
30	150206	ABANDON CULVERT	EA	5		
31 (S)	035504	ABANDON SEWER MANHOLE	EA	4		
32 (S)	150227	ABANDON PIPELINE	EA	2		
33 (S)	035505	ABANDON SEWER (300 MM OR GREATER)	M	57		
34 (S)	035506	ABANDON SEWER (LESS THAN 300 MM)	EA	24		
35	150305	OBLITERATE SURFACING	M2	2100		
36 (S)	150605	REMOVE FENCE	M	1220		
37 (S)	035507	REMOVE PIPE HANDRAILING	M	58		
38	150615	REMOVE ENTRANCE TAPER	EA	5		
39 (S)	150662	REMOVE METAL BEAM GUARD RAILING	M	290		
40 (S)	150666	REMOVE METAL BEAM BARRIER	M	75		

ENGINEER'S ESTIMATE
03-3555U4

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
41 (S)	150668	REMOVE FLARED END SECTION	EA	4		
42 (S)	035508	ABANDON IRRIGATION BOX	EA	1		
43 (S)	150704	REMOVE YELLOW THERMOPLASTIC TRAFFIC STRIPE	M	4990		
44 (S)	150710	REMOVE TRAFFIC STRIPE	M	11 800		
45 (S)	150713	REMOVE PAVEMENT MARKING	M2	320		
46	150742	REMOVE ROADSIDE SIGN	EA	73		
47	150760	REMOVE SIGN STRUCTURE	LS	LUMP SUM	LUMP SUM	
48	035509	REMOVE UNDERDRAIN PIPE	M	230		
49	035510	REMOVE SLOTTED PIPE	M	81		
50	150805	REMOVE CULVERT	M	200		
51	150806	REMOVE PIPE	M	28		
52	150820	REMOVE INLET	EA	20		
53	150821	REMOVE HEADWALL	EA	2		
54	150823	REMOVE DOWNDRAIN	EA	4		
55 (S)	150824	REMOVE SEWER MANHOLE	EA	45		
56	150829	REMOVE RETAINING WALL	M2	360		
57 (S)	150841	REMOVE SEWER PIPE	M	3000		
58	150857	REMOVE ASPHALT CONCRETE SURFACING	M2	170		
59	150859	REMOVE ASPHALT CONCRETE OVERSIDE DRAIN	EA	1		
60 (S)	151540	RECONSTRUCT CHAIN LINK FENCE	M	39		

ENGINEER'S ESTIMATE
03-3555U4

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
61 (S)	151625	RECONSTRUCT METAL BEAM GUARD RAILING (WOOD POST)	M	290		
62	035511	REMOVE CONCRETE (PEDESTRIAN RAMP)	M3	16		
63 (S)	035512	RESET PROPANE TANK	EA	6		
64	152370	RELOCATE MAILBOX	EA	7		
65 (S)	035513	RELOCATE CRASH CUSHION (ADIEM)	EA	6		
66	152390	RELOCATE ROADSIDE SIGN	EA	52		
67	035514	RELOCATE HISTORICAL MONUMENTS	LS	LUMP SUM	LUMP SUM	
68	152430	ADJUST INLET	EA	4		
69	152440	ADJUST MANHOLE TO GRADE	EA	2		
70 (S)	035515	ADJUST SEWER MANHOLE TO GRADE	EA	4		
71	152604	MODIFY INLET	EA	4		
72	035516	CEMENTITIOUS PIPE LINING	M	72		
73 (S)	152702	REMODEL MANHOLE	EA	1		
74 (S)	152730	REMODEL SEWER MANHOLE	EA	6		
75 (S)	153103	COLD PLANE ASPHALT CONCRETE PAVEMENT	M2	11 700		
76	035517	REMOVE CONCRETE PEDESTAL	M3	2.3		
77	153213	REMOVE CONCRETE (STRUCTURE)	M3	270		
78	153214	REMOVE CONCRETE CURB	M	4830		
79	153216	REMOVE CONCRETE CURB AND SIDEWALK	M	220		
80	153221	REMOVE CONCRETE BARRIER	M	1280		

ENGINEER'S ESTIMATE
03-3555U4

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
81	153225	PREPARE CONCRETE BRIDGE DECK SURFACE	M2	3400		
82	153530	ACCESS OPENING, DECK	EA	6		
83	155003	CAP INLET	EA	8		
84	156585	REMOVE CRASH CUSHION	EA	2		
85	157551	BRIDGE REMOVAL, LOCATION A	LS	LUMP SUM	LUMP SUM	
86	157552	BRIDGE REMOVAL, LOCATION B	LS	LUMP SUM	LUMP SUM	
87	157553	BRIDGE REMOVAL, LOCATION C	LS	LUMP SUM	LUMP SUM	
88	157561	BRIDGE REMOVAL (PORTION), LOCATION A	LS	LUMP SUM	LUMP SUM	
89	157562	BRIDGE REMOVAL (PORTION), LOCATION B	LS	LUMP SUM	LUMP SUM	
90	160101	CLEARING AND GRUBBING	LS	LUMP SUM	LUMP SUM	
91	190101	ROADWAY EXCAVATION	M3	47 700		
92	190110	LEAD COMPLIANCE PLAN	LS	LUMP SUM	LUMP SUM	
93 (F)	192003	STRUCTURE EXCAVATION (BRIDGE)	M3	1850		
94 (F)	192020	STRUCTURE EXCAVATION (TYPE D)	M3	1310		
95 (F)	192037	STRUCTURE EXCAVATION (RETAINING WALL)	M3	4009		
96 (F)	193003	STRUCTURE BACKFILL (BRIDGE)	M3	1800		
97	193006	STRUCTURE BACKFILL (SLURRY CEMENT)	M3	23		
98 (F)	193013	STRUCTURE BACKFILL (RETAINING WALL)	M3	3858		
99 (F)	193031	PERVIOUS BACKFILL MATERIAL (RETAINING WALL)	M3	190		
100	193114	SAND BACKFILL	M3	21		

ENGINEER'S ESTIMATE
03-3555U4

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
121	208731	200 MM CORRUGATED HIGH DENSITY POLYETHYLENE PIPE CONDUIT	M	170		
122	035521	150 MM GALVANIZED STEEL PIPE	M	4		
123	260201	CLASS 2 AGGREGATE BASE	M3	10 100		
124	390095	REPLACE ASPHALT CONCRETE SURFACING	M3	52		
125	390153	ASPHALT CONCRETE (TYPE A)	TONN	22 500		
126	394002	PLACE ASPHALT CONCRETE (MISCELLANEOUS AREA)	M2	660		
127	394040	PLACE ASPHALT CONCRETE DIKE (TYPE A)	M	26		
128	394044	PLACE ASPHALT CONCRETE DIKE (TYPE C)	M	61		
129	394048	PLACE ASPHALT CONCRETE DIKE (TYPE E)	M	1330		
130	394049	PLACE ASPHALT CONCRETE DIKE (TYPE F)	M	550		
131	BLANK					
132	490562	FURNISH STEEL PILING (HP 310 X 125)	M	1128		
133 (S)	490563	DRIVE STEEL PILE (HP 310 X 125)	EA	162		
134 (S)	490657	600 MM CAST-IN-DRILLED-HOLE CONCRETE PILING	M	50		
135 (S)	490661	1.2 M CAST-IN-DRILLED-HOLE CONCRETE PILING	M	12		
136 (S)	490676	600 MM CAST-IN-DRILLED-HOLE CONCRETE PILING (ROCK SOCKET)	M	60		
137 (S)	490677	1.2 M CAST-IN-DRILLED-HOLE CONCRETE PILING (ROCK SOCKET)	M	87		
138 (S)	500001	PRESTRESSING CAST-IN-PLACE CONCRETE	LS	LUMP SUM	LUMP SUM	
139 (S)	049952	PRESTRESSING (TRANSVERSE)	LS	LUMP SUM	LUMP SUM	
140 (F)	510051	STRUCTURAL CONCRETE, BRIDGE FOOTING	M3	510		

ENGINEER'S ESTIMATE
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Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
141 (F)	510053	STRUCTURAL CONCRETE, BRIDGE	M3	3630		
142 (F)	510060	STRUCTURAL CONCRETE, RETAINING WALL	M3	1367		
143 (F)	510072	STRUCTURAL CONCRETE, BARRIER SLAB	M3	12		
144 (F)	510085	STRUCTURAL CONCRETE, APPROACH SLAB (TYPE EQ)	M3	80		
145	510314	CLASS 4 CONCRETE (BACKFILL)	M3	150		
146 (F)	510502	MINOR CONCRETE (MINOR STRUCTURE)	M3	93		
147	511047	ANTI-GRAFFITI COATING	M2	2960		
148 (F)	049953	DRYSTACK ROCK TEXTURE	M2	650		
149 (F)	049954	HANDCUT ROCK FACE TEXTURE	M2	115		
150 (F)	049955	LEDGESTONE TEXTURE	M2	160		
151	511106	DRILL AND BOND DOWEL	M	40		
152 (S)	049956	FURNISH PRECAST PRESTRESSED CONCRETE DECK UNIT (SLAB-TYPE)	EA	16		
153 (S)	512510	ERECT PRECAST PRESTRESSED CONCRETE DECK UNIT	EA	16		
154	515041	FURNISH POLYESTER CONCRETE OVERLAY	M3	70		
155 (F)	515042	PLACE POLYESTER CONCRETE OVERLAY	M2	3520		
156	035522	CONCRETE ANCHOR	EA	2		
157 (S)	519117	JOINT SEAL (MR 30 MM)	M	10		
158	BLANK					
159 (S)	519142	JOINT SEAL (MR 40 MM)	M	86		
160	BLANK					

ENGINEER'S ESTIMATE
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Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
181	665734	450 MM SLOTTED CORRUGATED STEEL PIPE (4.27 MM THICK)	M	590		
182	035525	SEWER CLEANOUT	EA	42		
183	035526	FLUSHING BRANCH	EA	8		
184	680637	200 MM NON-PERFORATED STEEL PIPE UNDERDRAIN (2.01 MM THICK)	M	12		
185	680933	200 MM PERFORATED PLASTIC PIPE UNDERDRAIN	M	120		
186	690276	450 MM BITUMINOUS COATED CORRUGATED STEEL PIPE DOWNDRAIN (2.01 MM THICK)	M	120		
187	691901	BITUMINOUS COATED FLUME DOWNDRAIN	M	29		
188	692095	450 MM BITUMINOUS COATED ENTRANCE TAPER	EA	1		
189	692131	BITUMINOUS COATED TAPERED INLET	EA	2		
190	692361	FLUME ANCHOR ASSEMBLY	EA	9		
191	692385	450 MM ANCHOR ASSEMBLY	EA	13		
192	700617	DRAINAGE INLET MARKER	EA	30		
193	703233	GRATED LINE DRAIN	M	54		
194 (S)	035527	300 MM WELDED STEEL PIPE CASING (PIPE SUPPORT)	M	190		
195 (S)	035528	500 MM WELDED STEEL PIPE CASING (6.35 MM THICK, JACKED)	M	190		
196	705055	450 MM BITUMINOUS COATED STEEL FLARED END SECTION	EA	6		
197	705336	450 MM ALTERNATIVE FLARED END SECTION	EA	10		
198	705337	600 MM ALTERNATIVE FLARED END SECTION	EA	3		
199	707247	1200 MM PRECAST CONCRETE PIPE MANHOLE	EA	3		
200 (S)	035529	200 MM DUCTILE IRON PIPE WATER MAIN	M	310		

ENGINEER'S ESTIMATE
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Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
201 (S)	035530	150 MM DUCTILE IRON PIPE WATER MAIN	M	32		
202 (S)	035531	25 MM WATER SERVICE LINE	M	120		
203 (S)	035532	WATER LINE APPURTENANCES	LS	LUMP SUM	LUMP SUM	
204 (S)	035533	100 MM DUCTILE IRON PIPE	M	120		
205 (S)	035534	150 MM DUCTILE IRON PIPE	M	470		
206 (S)	035535	200 MM DUCTILE IRON PIPE	M	600		
207	BLANK					
208	035537	TELEVISION INSPECTION	LS	LUMP SUM	LUMP SUM	
209	035538	SHALLOW SEWER MANHOLE	EA	3		
210 (S)	719210	CONCRETE SEWER MANHOLE	EA	31		
211 (S)	719220	DROP SEWER MANHOLE	EA	26		
212	035539	ROCK SLOPE PROTECTION (75 MM, METHOD B)	M3	19		
213	720118	ROCK SLOPE PROTECTION (2T, METHOD A)	M3	180		
214	720119	ROCK SLOPE PROTECTION (1T, METHOD A)	M3	240		
215	720120	ROCK SLOPE PROTECTION (1/2T, METHOD A)	M3	180		
216	721009	ROCK SLOPE PROTECTION (FACING, METHOD B)	M3	180		
217	721011	ROCK SLOPE PROTECTION (BACKING NO. 2, METHOD B)	M3	340		
218	721024	ROCK SLOPE PROTECTION (1/4T, METHOD B)	M3	890		
219 (F)	049958	SLOPE PAVING (LEDGESTONE PAVER)	M2	800		
220	722010	COBBLESTONE	M3	10		

ENGINEER'S ESTIMATE
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Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
221	729010	ROCK SLOPE PROTECTION FABRIC	M2	2320		
222	731501	MINOR CONCRETE (CURB)	M3	36		
223	731502	MINOR CONCRETE (MISCELLANEOUS CONSTRUCTION)	M3	75		
224	035540	MINOR CONCRETE (CURB, GUTTER & SIDEWALK)	M3	250		
225	731504	MINOR CONCRETE (CURB AND GUTTER)	M3	190		
226	731505	MINOR CONCRETE (CURB AND SIDEWALK)	M3	33		
227	035541	MINOR CONCRETE (CURB, SIDEWALK & DRIVEWAY)	M3	2		
228	731510	MINOR CONCRETE (CURB, GUTTER, SIDEWALK AND DRIVEWAY)	M3	13		
229	035542	MINOR CONCRETE (CURB, GUTTER & DRIVEWAY)	M3	7		
230 (F)	731517	MINOR CONCRETE (GUTTER)	M	113		
231 (F)	731521	MINOR CONCRETE (SIDEWALK)	M3	30		
232	731530	MINOR CONCRETE (TEXTURED PAVING)	M3	250		
233	731623	MINOR CONCRETE (CURB RAMP)	M3	16		
234 (S-F)	750001	MISCELLANEOUS IRON AND STEEL	KG	9880		
235 (S-F)	750002	MISCELLANEOUS IRON AND STEEL (SEWER SYSTEM)	KG	22 221		
236	035543	PIPE SUPPORT (CREEK CROSSING)	EA	1		
237	750010	MANHOLE FRAME AND COVER	EA	3		
238 (S-F)	750501	MISCELLANEOUS METAL (BRIDGE)	KG	630		
239 (S-F)	750515	ISOLATION CASING	KG	1800		
240 (S)	800386	CHAIN LINK FENCE (TYPE CL-1.2, VINYL-CLAD)	M	27		

ENGINEER'S ESTIMATE
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Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
281 (S)	840560	THERMOPLASTIC TRAFFIC STRIPE (SPRAYABLE)	M	11 400		
282 (S)	840561	100 MM THERMOPLASTIC TRAFFIC STRIPE	M	3980		
283 (S)	840563	200 MM THERMOPLASTIC TRAFFIC STRIPE	M	930		
284 (S)	840567	100 MM THERMOPLASTIC TRAFFIC STRIPE (BROKEN 1.83 M - 0.30 M)	M	90		
285 (S)	840570	100 MM THERMOPLASTIC TRAFFIC STRIPE (BROKEN 10.98 M - 3.66 M)	M	5650		
286 (S)	840666	PAINT PAVEMENT MARKING (2-COAT)	M2	60		
287	842000	PARKING BUMPER (PRECAST CONCRETE)	EA	60		
288 (S)	850122	PAVEMENT MARKER (RETROREFLECTIVE-RECESSED)	EA	1280		
289 (S)	860298	SIGNAL AND LIGHTING (STAGE CONSTRUCTION)	LS	LUMP SUM	LUMP SUM	
290 (S)	035553	LIGHTING (CITY STREET)	LS	LUMP SUM	LUMP SUM	
291 (S)	860402	LIGHTING (CITY STREET)	LS	LUMP SUM	LUMP SUM	
292 (S)	860403	HIGHWAY LIGHTING	LS	LUMP SUM	LUMP SUM	
293 (S)	860415	LIGHTING (STAGE CONSTRUCTION)	LS	LUMP SUM	LUMP SUM	
294 (S)	860501	SIGN ILLUMINATION	LS	LUMP SUM	LUMP SUM	
295 (S)	860990	CLOSED CIRCUIT TELEVISION SYSTEM	LS	LUMP SUM	LUMP SUM	
296 (S)	861497	MODIFY SIGNAL AND LIGHTING (LOCATION 1)	LS	LUMP SUM	LUMP SUM	
297 (S)	861498	MODIFY SIGNAL AND LIGHTING (LOCATION 2)	LS	LUMP SUM	LUMP SUM	
298 (S)	861499	MODIFY SIGNAL AND LIGHTING (LOCATION 3)	LS	LUMP SUM	LUMP SUM	
299	035554	150 MM PVC CONDUIT (PG&E)	M	46		
300	BLANK					

ENGINEER'S ESTIMATE
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Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
301	150846	REMOVE CONCRETE PAVEMENT	M3	2.5		
302 (S)	519128	JOINT SEAL ASSEMBLY (MR 100 MM)	M	2.5		
303 (S)	038477	POLYVINYL CHLORIDE SEWER PIPE	M	1290		
304	999990	MOBILIZATION	LS	LUMP SUM	LUMP SUM	

TOTAL BID: _____